

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

FREDERIC C. AMBROSE and
FLEX-REST, LLC,

Plaintiffs,

Case No. 1:02-CV-537

v.

HON. DAVID W. McKEAGUE

STEELCASE, INC., and
OFFICE DETAILS, INC.,

Defendants.

**MEMORANDUM OPINION
ON REMAINING CLAIM CONSTRUCTION
AND SUMMARY JUDGMENT ISSUES**

On September 2, 2003, the Court conducted a hearing on disputed claim construction and summary judgment issues. The Court issued several rulings from the bench, identifying three terms that actually require construction by the Court, and taking them under advisement; and denying three motions for summary judgment and taking one under advisement. These rulings were memorialized in the Court's initial order on claim construction and summary judgment issues, dated September 3, 2003. The Court now addresses the remaining issues that were taken under advisement.

I. CLAIM CONSTRUCTION

A. The '489 Patent

1. "Clamp"

In this patent infringement action, two patents are at issue. The first is United States Patent No. 5,709,489 (the '489 patent), entitled "Keyboard Positioning System," issued on January 20, 1998. The '489 patent describes "a device for mounting a keyboard to a base and for positioning the

keyboard in a backward tilted position.” The device includes, *inter alia*:

a clamp engaged with said bracket said clamp being engagable [sic] with a keyboard such that the keyboard may be oriented in a backward titled position defined by the rear end of the keyboard being disposed below the front end of the keyboard, to prevent the keyboard from falling off when the keyboard is oriented in said backward titled position.

‘498 patent, claim 1(b), col. 4, ll. 48-54.

“Clamp” is not defined in the claim itself or in the specification. Presumptively, then, the term should be given its ordinary and customary meaning, as understood by one of ordinary skill in the art. *Prima Tek II, L.L.C. v. Polypap, S.A.R.L.*, 318 F.3d 1143, 1148 (Fed. Cir. 2003). The parties agree that “clamp” should be given its plain and ordinary meaning. Their respective proposed definitions, however, are different in one material respect. Plaintiffs’ proposed definition:

A clamp is a structure that can provide gripping forces for supporting a keyboard and stops it from falling off when the key plane of the keyboard is negatively titled.

Defendants’ proposed definition:

A clamp is a device that can grip or bind a keyboard by at least two opposing points to stop it from falling off when the keyboard is tilted backwards.

The dispute thus evolves around whether the clamp must grip the keyboard by at least two opposing forces.

Defendants contend the ordinary and customary meaning of clamp, as reflected in several dictionary definitions, contemplates a device or instrument designed to bind, constrict or press two or more parts together so as to hold them firmly. Indeed, the Oxford English Dictionary defines “clamp” most relevantly as “a name of various appliances, tools or instruments with opposite sides or parts which may be screwed or otherwise brought together, so as to seize, hold, compress, or pinch anything.” Oxford English Dictionary Online, Oxford University Press, Second Edition (1989).

Defendants thus argue that this pinching, binding or pressing action, by exertion of force at at least two opposing points, is integral to the nature and operation of a clamp, as opposed to instruments or structures that may use other means to hold an object in place. Applying the common meaning of “clamp,” this Court agrees.

Plaintiffs insist that the claim language and specification do not support such a limitation. They argue that a “clamp” is any “support” or “support member” that keeps the keyboard from falling, whether or not any pinching, binding or pressing dynamic is used.

Yet, the limitation is unavoidably implicit in the term “clamp.” A support member that holds an object in place without pinching, binding or pressing it between opposing points is simply not a “clamp,” as that term is commonly understood. That this common, ordinary understanding prevails among those skilled in the art is attested to by Richard Benoit, a Steelcase Senior Sales Consultant, whose second declaration has, in this respect, not been rebutted. This construction is entirely consistent with the structure disclosed in the patent. It is also consistent with the prosecution history. Plaintiffs’ arguments to the contrary are transparently meritless.

Accordingly, defendants’ proposed definition of clamp shall be adopted by the Court for use in adjudicating plaintiffs’ infringement claim:

A clamp is a device that can grip or bind a keyboard by at least two opposing points to stop it from falling off when the keyboard is tilted backwards.

2. “The rear end of the keyboard being disposed below the front end of the keyboard”

Claim 1 of the ‘489 patent also includes language defining the “backward tilted position” in which a keyboard may be oriented as “the rear end of the keyboard being disposed below the front end of the keyboard.” The parties disagree as to whether “below” should be construed as referring

to a measurement of (a) the bottom surface of the keyboard or (b) the key plane, the plane defined by the upper most portion of the keyboard keys. Plaintiffs' proposed construction:

The keyboard is oriented so that the tilt is sufficient to provide some negative tilt of the key plane in order to achieve the benefits of the invention.

Defendants' proposed construction:

The support device permits the bottom of a keyboard to be tilted backward (i.e., at any angle of less than 0 degrees).

Plaintiffs rightly argue that their construction finds support in the specification, where "backward tilt" is illustrated with reference to the top surface or key plane. Moreover, it is indisputable that the very purpose for the device, to provide ergonomic advantage to keyboard operators, is dependant on the negative or backward tilting of the key plane. It follows, plaintiffs argue, that "backward tilted position" should be construed with reference to the key plane.

Plaintiffs' arguments are not without appeal, but they are ultimately unpersuasive. The purpose of a patent is to define and give public notice of the patent holder's exclusive rights in the claimed invention so as to exclude other inventors and competitors from making, using or selling the invention. *King Industries Corp. v. Perego*, 65 F.3d 941, 947 (Fed. Cir. 1995). A patent claim is invalid for indefiniteness if, when read in light of the specification, it does not reasonably apprise those skilled in the art of the scope of the invention. *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1342 (Fed. Cir. 2003). This definiteness requirement assures that patent claims are sufficiently precise to permit a potential competitor to determine whether or not it is infringing. *Id.* A claim is fatally indefinite if it is "insolubly ambiguous, and no narrowing construction can properly be adopted." *Id.* (quoting *Exxon Research & Engineering Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001)).

Defendants observe that “keyboard” is not a part of the claimed invention and is not defined in the ‘489 patent. Rather, the patent describes a keyboard positioning system. Because keyboards have varying designs with different key plane configurations, defendants contend that construing “backward tilted position” in terms of the key plane results in a definition that fails to reasonably apprise potential competitors, i.e., designers, manufacturers and sellers of keyboard positioning systems, as to whether their products would be infringing.

In response to this argument, plaintiffs have, at the September 2, 2003 hearing, proposed an amended construction. Plaintiffs would have the Court read just four additional words into the claim language: “*all of* the rear end of the keyboard being disposed below *all of* the front end of the keyboard.” This proposed construction is arguably superior, but remains contingent on keyboard design variables that undermine potential competitors’ ability to determine whether their products would be infringing.

Defendants’ proposed definition, on the other hand, is linked to the bottom surface or plane (as defined by the four feet or resting contact points on the bottom surface) of the keyboard, which is universally flat because it is designed to rest potentially on a flat support tray or support surface. If the subject claim language is construed as referring to the orientation of the *bottom of* the rear end of the keyboard in relation to the *bottom of* the front end of the keyboard, defendants contend, it reasonably appraises those skilled in the art of the scope of the patented invention. This construction is supported by Richard Benoit’s second declaration:

In the furniture industry, backward tilt has always been measured by the tilt of the support surface of the keyboard, i.e., the tilt of the bottom of the keyboard. The reason is very practical. The furniture manufacturers design and market keyboard supports, not keyboards, and cannot control the tilt of the keyboard key plane.

Benoit Second Declaration, ¶ 4. This construction is not inconsistent with the claim language and specification or the prosecution history. It represents a sensible, clarifying construction. The Court will therefore adopt defendants' proposed construction:

“Backward tilted position,” “defined by the rear end of the keyboard being disposed below the front of the keyboard” is construed to mean that the support device permits the bottom of a keyboard to be tilted backward (i.e., at any angle of less than 0 degrees).

B. The ‘231 Patent

1. “Side wall”

The second patent at issue in this case is United States Patent No. 5,961,131 (the ‘231 patent), entitled “Keyboard Positioning System” and issued on October 5, 1999. The ‘231 patent also describes “a device for mounting a keyboard to a base and for positioning the keyboard in a backward tilted position.” The device claimed in claim 1 is comprised in part of

(c) a support tray comprising:

a support surface and

a keyboard stop member comprising a stop wall, said support surface comprising a front position, a rear portion, a first sidewall, and a second sidewall, such that said stop wall extends from said first side wall to said second side wall and wherein said stop wall is disposed in said rear portion of said support surface. . . .

‘231 patent claim 1(c), col. 9, 11. 47-54.

Plaintiffs contend “side wall” should be given its ordinary and accustomed meaning: “a wall forming the side of something.” Merriam-Webster Unabridged Dictionary (2002) (online version). As such, plaintiffs contend the term is broad enough to include side walls of the support tray support surface that extend either upwardly or downwardly from the sides of the support surface. Defendants maintain that a side wall is ordinarily understood to be “a vertical structure or member forming an

enclosure or defining a space.” McGraw-Hill Dictionary of Scientific and Technical Terms, Fifth Edition (1994). Defendants argue that a downwardly extending side wall would not serve to enclose the space of the keyboard support surface.

Although the parties argue matters of prosecution history and extrinsic evidence in support of their respective positions, this dispute is properly resolved with reference to the patent language and specification. Each “side wall” is part of a support surface, a surface of a support tray, designed to support a keyboard. The keyboard rests on the top of the support surface. Whether the side wall is deemed to partly “form the enclosure of the support surface,” or “define the space of the support surface,” or “form the side of the support surface,” it is clearly the top, and not the bottom, of the support surface that is relevant. A side wall must be a wall in relation to the *top* of the support surface. It follows, applying even plaintiffs’ proposed definition, that a side wall must project upward from the side of the support tray to form the side of the support surface. A structure or surface which projected only downward from the support surface could be considered part of the edge of the support tray, but would not form the side or define the space of the “support surface” for purposes of this claim.

This construction is consistent with the plain and ordinary meaning of side wall, consistent with the claim language and specification disclosures, and consistent with plaintiffs’ own initial proposal, recognizing that “wall” includes a structure having a slightly upward projection or enclosing part. *See* Markman Charts, docket #88, p. 3. Accordingly, the Court holds:

“Side wall” shall be construed to mean a structure projecting or extending upward, i.e., above the plane of the support surface, from either side of the support tray.

II. DEFENDANTS' SECOND MOTION FOR PARTIAL SUMMARY JUDGMENT OF NON-INFRINGEMENT OF THE '231 PATENT

Plaintiffs' sole outstanding infringement claim under the '231 patent is directed to defendant Steelcase's "Equilibrium" keyboard support trays. Based on the above definition of "side wall," defendants contend they are entitled to summary judgment of noninfringement, because there is no evidence that the Equilibrium trays have an upwardly projecting structure on either side of the support tray.

Plaintiffs contend the Equilibrium model consisting of an aluminum center platform section with a plastic mousepad section on either side of the center section does include upwardly projecting side walls. Each mousepad section is connected to the center section by an intermediate plastic strip that has a vertical dimension and is situated between the two joined sections. Relying on the declaration of John C. Rosecrance, a certified professional ergonomist, plaintiffs contend this intermediate plastic strip is a "side wall" that extends slightly above the support tray surface.

Defendants respond with the declaration of Steve Channer, Steelcase Product Marketing Manager. Channer testifies that the intermediate strips are not found at the sides of the platform and would never be considered "side walls" by anyone in the industry. He states that they are designed to be flush or flat with the surface of the center section and mousepad section; any slight bump or indentation that might exist where the surfaces meet would be barely perceptible and would be a function of imperfections in the manufacturing process or changes in temperature of humidity.

Because of the apparent factual dispute posed by the Rosecrance and Channer declarations the Court examined the subject Equilibrium support tray at the September 2, 2003 hearing. Upon careful examination, the Court determined then and affirms now that even if the intermediate strips

could be deemed to otherwise come within the definition of “side wall,” they do not protrude or extend upward, i.e., above the plane of the support surface, to any materially significant degree. In the absence of this upward protrusion feature, it is clear the Equilibrium platform is not possessed of “side walls,” as that term has been construed by the Court.

If follows that defendants’ manufacturing and distributing of the Equilibrium does not infringe plaintiffs’ rights under the ‘231 patent and that defendants are entitled to judgment of noninfringement as a matter of law. Accordingly, defendants’ second motion for partial summary judgment of noninfringement of the ‘231 patent will be granted. An order consistent with this opinion shall issue forthwith.

November 10, 2003

/s/ David W. McKeague
DAVID W. McKEAGUE
UNITED STATES DISTRICT JUDGE